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Using REDCap to Capture Good Data

Quantitative Health Sciences was established to provide help in the design and analysis of research studies

## What else do I need to know?

A database is not a universal remedy for the many ailments of data management.

However, it is a useful tool that can be customized to your individual needs.

Quantitative Health Sciences is available for assistance and can provide support for ongoing or future projects.

### Other QHS brochures

How Quantitative Health Sciences Can Satisfy Your Research Needs

Sound Principals for Simple Statistics

#### **Related QHS Database Brochures**

Database Ownership

Avoiding Pitfalls That Result in Bad Data

Guidelines for Detecting Bad Data

Working with Spreadsheets

Markedly Good Data Using Remark

Don't Monkey Around Use Survey Monkey

# Capturing good data

## What is REDCap?

REDCap is a secure, web-based application for building and managing online databases. Use the stream-lined process of REDCap for rapidly developing databases without extra software being required.

## How do you use it?

You may create and design databases using 1) the online method from your web browser using the Online Form Editor and/or 2) the offline method by constructing a "data dictionary" template file in Microsoft Excel, which can be later uploaded into REDCap.

## What does REDCap offer?

REDCap provides automated export procedures for seamless data downloads to Excel and common statistical packages (SPSS, SAS, Stata, R), as well as a built-in project calendar, a scheduling module, ad hoc reporting tools, and advanced features, such as branching logic, file uploading, and calculated fields. REDCap is a fast and flexible way to quickly design a database.

QHS will be happy to assist you with your project. Here is what you need to think about before you start your database.

# It is important to think about your project needs first. For example,

- What is the purpose of the database?
- What data would you like to capture and what level of detail is required for your project? It is best for the PI and study team to discuss the variables that will be needed, since they have the best understanding of the project.
- Will you be collecting this data longitudinally?
  - How would you like to structure the database (e.g. multiple visits)?
- Do you want field calculated formulas built in your database?
- Branching logic may also be set-up for questions. For example, if a box was checked yes for a particular test performed, then additional questions for this test would then appear.

## IRB Approval

If you are collecting data for the purposes of human subject review, review and approval of the project is required by your Institutional Review Board.

#### What can QHS offer?

A meeting with QHS can then be set up to discuss what you feel is needed for the database. QHS can make suggestions on data collection and can help think of issues you may have not thought of. We can assist you with the start of the off-line method, called the "Data Dictionary", which is a specifically formatted Microsoft Excel file within which you may construct your database fields and afterward upload the file into REDCap to commit the changes to your database.

QHS will assist with putting the data in Excel into REDCap. It is important to plan well, but it really may take several iterations needed to perfect the database. In REDCap you can always make changes to your database in the Editor mode and during the design process. A PDF version of your data collection forms can be generated for printing to collect data offline or share the forms with others.

At any time you can archive/remove a database if you decide you don't want to use it any longer.